

CONFIDENTIAL

Date: December 12, 1963

To: Dr. H. Wakeham
From: Frank E. Resnik
Subject: Cigarette Lengths of Competitive Brands

An observation made by the Manufacturing Department indicated that the Winston king size cigarette was slightly shorter than our Marlboro king size cigarette. At their suggestion, these cigarette brands were measured to the nearest 0.1 mm and the investigation was continued to include all of the brands analyzed for the CI Report. The measurements were made on a random sample of at least 25 cigarettes from ten cartons obtained from five different cities. All measurements were on cigarettes manufactured in October 1963.

The data show that of all the companies, the length of the Philip Morris products is closest to the nominal value (85 mm, 80 mm, etc.). On the basis of brands, the regular size non-filter cigarettes for all companies more nearly measured the nominal 70 mm value. The P. Lorillard and Philip Morris king size non-filter brands were closest to the nominal 85 mm value.

The American Tobacco Company cigarettes are measuring about 0.5 mm shorter than the nominal values, with the exception of the Lucky Strike cigarettes which measure closely to the nominal 70 mm value. The same observation appears to hold for the Reynolds products. Again, the Winston cigarettes are about 0.5 mm shorter while the Camel cigarettes approach the nominal 70 mm value.

The P. Lorillard filter brands are also on the short side. The Kents are variable and in complete contrast to the non-filter Old Gold Straights (regular and king size) which are consistently close to the nominal values of 70 mm and 85 mm.

The Liggett & Myers cigarettes are variable and the L&M (85, 80, 70) brands are about 0.5 mm shorter than the nominal values. The non-filters are variable and shorter than their nominal values.

The length measurements for the major brands are plotted by companies and brands in Figure 1. It should be noted that some of the cigarette lengths show a normal distribution curve whereas some show a skewed distribution curve. For example, the Pall Mall and Chesterfield king show a normal distribution which is 0.5 mm shorter than the nominal 85 mm value. This probably indicates that the target length is not 85.0 mm but 84.5 mm. On the other hand, brands such as Philip Morris Commander and Marlboro are skewed tending to approach the nominal values. The individual values are very seldom greater than the nominal value indicating that the machines are probably set not to exceed the nominal value. The length values for all

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brands analyzed for the CI Report are given in Table 1 including the standard deviation for the specific brands.

No further work is planned either now or in the future on accurate cigarette length measurements unless specific requests are made for additional information.

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Attachments

cc: Dr. A. Bavley

Dr. R. B. Seligman